

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Mitsuru Kaneko)	
)	
S.N.: unknown)	Examiner: Unknown
)	
Filed:)	Art Unit: Unknown
)	
For: Continuous Ceramic Composite)	
Plating Method And Apparatus)	
For Long Doctor Blade Materials))	
)	

Box Patent Application
Hon. Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Please amend the above-identified patent application prior to examination thereof in the manner indicated below.

PRELIMINARY AMENDMENT
(37 C.F.R. §1.111)

IN THE SPECIFICATION:

Please amend the specification as follows, in accordance with 37 C.F.R. 1.121(a):

On page 1, before "1. Field of the Invention", insert

-- RELATED APPLICATIONS

This application is a divisional of Application Ser. No. 09/469,555, filed December 22, 1999, which is a divisional of Application Ser. No. 08/964,246, filed November 4, 1997. --

IN THE CLAIMS:

Please cancel Claims 1-4 without disclaimer to their content as these claims were allowed in amended form in the parent application ser. no. 08/964,246.

Please also cancel Claims 5-6 without disclaimer to their content as these claims were allowed in divisional application ser. no. 09/469,555.

Please amend Claim 7 in accordance with 37 C.F.R. 1.121. A marked-up copy of the claim is attached herein on a separate sheet and a clean version of the claim is also attached herein on a separate sheet.

PLEASE ADD THE FOLLOWING NEW CLAIM:

Please add new Claim 8, which is attached herein on a separate sheet.

IN THE ABSTRACT:

Please delete the Abstract as filed and substitute therefor the enclosed ABSTRACT OF THE DISCLOSURE, which is submitted herewith on a separate sheet of paper in accordance with 37 C.F.R. §1.72.

Conclusion

A Notice of Allowance is earnestly solicited.

If the Office is not fully persuaded as to the merits of Applicant's position, or if an Examiner's Amendment would place

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MARKED-UP VERSION OF AMENDED CLAIM 7

7. (Amended) An apparatus for continuously producing baked long doctor materials comprising:

a plurality of pinch rollers for continuously forwardly straightening out long doctor materials plated [by the method according to claim 1 or claim 2 from the] ~~from a~~ take-up reel ~~by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step, electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously a long doctor blade base material held on a material reel spirally while the blade surface is maintained in a horizontal direction with respect to the surface of the solution for uniformly plating the long doctor blade material wherein a higher concentration of a ceramic fine powder is deposited on a top surface of the long doctor blade material than a concentration of the ceramic fine powder deposited on the lower surface of the long doctor blade material, and a final step of taking up continuously the blade base material on the corresponding take-up reel while the blade base material is cramped by a plurality of pinch rolls;~~ and

a straightening furnace for baking through which the straightened plated blades pass.

CLEAN VERSION OF AMENDED CLAIM 7

7. (Amended) An apparatus for continuously producing baked long doctor materials comprising:

a plurality of pinch rollers for continuously forwardly straightening out long doctor materials plated from a take-up reel by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step, electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously a long doctor blade base material held on a material reel spirally while the blade surface is maintained in a horizontal direction with respect to the surface of the solution for uniformly plating the long doctor blade material wherein a higher concentration of a ceramic fine powder is deposited on a top surface of the long doctor blade material than a concentration of the ceramic fine powder deposited on the lower surface of the long doctor blade material, and a final step of taking up continuously the blade base material on the corresponding take-up reel while the blade base material is cramped by a plurality of pinch rolls; and

a straightening furnace for baking through which the straightened plated blades pass.

NEW CLAIM 8

8. An apparatus for continuously producing baked long doctor materials comprising:

a plurality of pinch rollers for continuously forwardly straightening out long doctor materials plated from a take-up reel by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step; electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously a plurality of long doctor blade base materials held on a plurality of material reels spirally while the blade surfaces are maintained in a horizontal direction with respect to the surface of the solution and a predetermined interval therebetween is maintained for uniformly plating the plurality of long doctor blade materials wherein a higher concentration of a ceramic fine powder is deposited on a top surface of each of the plurality of long doctor blade materials than a concentration of the ceramic fine powder deposited on the lower surface of each of the plurality of long doctor blade materials, and a final step of taking up continuously the plurality of doctor blade base materials on a plurality of corresponding take-up reels while the plurality of blade base materials are cramped by a plurality of pinch rolls; and

a straightening furnace for baking through which the straightened plated blades pass.

ABSTRACT OF THE DISCLOSURE

A continuous ceramic composite plating apparatus for producing long doctor materials having pinch rollers for continuously straightening out long doctor materials plated from a take-up reel(s) by a method comprising a degreasing step, rinsing step, acid immersion, rinsing step, electroless ceramic composite nickel plating step, plating solution collection step, rinsing step, and drying step between a first step of supplying continuously the long doctor blade base materials held on the reels spirally while the blade surface is maintained in a horizontal direction with respect to the surface of the solution for uniformly plating the long doctor blade material wherein a higher concentration of a ceramic fine powder is deposited on a top surface of the long doctor blade material, and a final step of taking up continuously the blade base material(s) on the corresponding take-up reel(s); and a straightening furnace for baking through which the straightened plated blades pass.